

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: GILL et al. Examiner: Unassigned
Serial No.: Unassigned Group Art Unit: Unassigned
Filed: July 29, 2003 Docket No.: HSJ920030016US3
(HITG.055PA)
Title: METHOD AND APPARATUS FOR ENHANCING THERMAL
STABILITY, IMPROVING BIASING AND REDUCING DAMAGE FROM
ELECTROSTATIC DISCHARGE IN SELF-PINNED ABUTTED
JUNCTION HEADS HAVING A SECOND HARD BIAS LAYER
DISPOSED AWAY FROM THE FREE LAYER

CERTIFICATE UNDER 37 CFR 1.10

Express Mail' mailing label number: EV 309496537 US

Date of Deposit: July 29, 2003

I hereby certify that this paper or fee is being deposited with the United States Postal Service 'Express Mail' Post Office To Addressee' service under 37 CFR 1.10 and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

By: Kathleen McDevitt
Name: Kathleen McDevitt

INFORMATION DISCLOSURE STATEMENT (37 C.F.R. §1.97(b))

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

With regard to the above-identified application, the items of information listed on the enclosed Form 1449 are brought to the attention of the Examiner.

This statement should be considered because it is submitted either within three months of the filing date or before the first Office Action of the above-identified application. Accordingly, no fee is due for consideration of the items listed on the enclosed Form 1449.

In accordance with 37 C.F.R. §1.98(a)(2), a copy of each document or other information listed on the enclosed Form 1449 is provided.

Please note that any notations or markings on the attached documents do not reflect particular relevance, or lack thereof, to the present application, nor were they necessarily made by anyone affiliated with the prosecution of the present application.

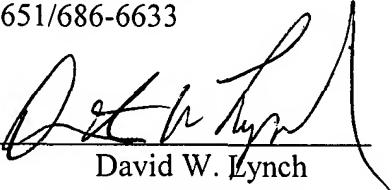
No representation is made that a reference is "prior art" within the meaning of 35 U.S.C. §§ 102 and 103 and Applicants reserve the right, pursuant to 37 C.F.R. § 1.131 or otherwise, to establish that the reference(s) are not "prior art." Moreover, Applicants do not represent that a reference has been thoroughly reviewed or that any relevance of any portion of a reference is intended.

Consideration of the items listed is respectfully requested. Pursuant to the provisions of M.P.E.P. 609, it is requested that the Examiner return a copy of the attached Form 1449, marked as being considered and initialed by the Examiner, to the undersigned with the next official communication.

Respectfully submitted,

Crawford Maunu PLLC
1270 Northland Drive
Suite 390
St. Paul, MN 55120
651/686-6633

Dated: July 29, 2003

By: 

David W. Lynch
Reg. No. 36,204

FORM 1449* INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION <small>(Use several sheets if necessary)</small>			Docket Number: HSJ920030016US3		Application Number:	
			Applicant: GILL et al.			
			Filing Date: 07/29/2003		Group Art Unit: unassigned	

U.S. PATENT DOCUMENTS						
EXAMINER INITIAL	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	US 2002/0154456 A1	10/24/2002	CAREY et al.			
	US 2002/0149889 A1	10/17/2002	GILL			
	US 2002/0154457 A1	10/24/2002	HORNG et al.			
	US 2002/0154455 A1	10/24/2002	LENSSEN			
	US 2002/0024780 A1	02/28/2002	MAO et al.			
	6,433,972	08/13/2002	MAO et al.			
	6,348,274	02/19/2002	KAMIGUCHI et al.			
	6,252,750	06/26/2001	GILL			
	6,324,037	11/27/2001	ZHU et al.			
	5,018,037	05/21/1991	KROUNBI et al.			
	US 2001/0004798 A1	06/28/2001	GILL			
	6,385,017	05/07/2002	MIN et al.			
	5,583,725	12/10/1996	COFFEY et al.			
	6,344,953	02/05/2002	KAUTZKY et al.			
	6,146,776	11/14/2000	FUKUZAWA et al.			
	US 2002/0085323 A1	07/04/2002	SMITH et al.			
	US 2001/0026425 A1	10/04/2001	MIYAZAWA et al.			
FOREIGN PATENT DOCUMENTS						
	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
						YES
	JP11045415A	1999-02-16	JP			Abstract only
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)						
	July 1998	Takahashi, M., Maeda, T., Inage, K., Sakai, M., Morita, H., and Matsuzaki, M., "EDS Induced Pinned Layer Reversal in Spin-Valve GMR Heads," <i>IEEE TRANSACTIONS ON MAGNETICS</i> , Vol. 34, No. 4., July 1998.				
	unknown	Hung, Silas T., Wong, C.Y., Osborn, Mark, Kagaoan, Joel, Zhang, L.Z., and Bordesos, Randy, "A Study of GMR Read Sensor Induced by Soft EDS Using Magnetoresistive Sensitivity Mapping (MSM)."				

EXAMINER	DATE CONSIDERED
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.	